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2b. DECLASSIFICATION / DOWNGRADING SCHEDULE

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4. PERFORMING ORGANIZATION REPORT NUMBER(S)

DOD POP HMTR/AYD 91-008

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Packaging Division, AED

6b. OFFICE SYMBOL  
(If applicable)

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6c. ADDRESS (City, State, and ZIP Code)

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Picatinny Arsenal, NJ 07806-5000

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11. TITLE (Include Security Classification)

Performance Oriented Packaging Report for Firing Device, Demolition,  
Multipurpose, M142

12. PERSONAL AUTHOR(S)

Sniezek, Frank

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16. SUPPLEMENTARY NOTATION

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18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)

Performance Oriented Packaging, POP, Firing,  
Device Demolition, Multipurpose, M142,  
Mil-B-46506 Wirebound Box, M19A1 Ammunition Box

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This POP report is for the Firing Device, Demolition, Multipurpose, M142, which is packaged 14 firing devices/M19A1 ammunition box. Four M19A1 ammunition boxes are overpacked with a Mil-B-46506 wirebound box for a total of 56 firing devices/Mil-B-46506 wirebound box. This report describes the results of testing conducted on a similar packaging which is used as an analogy for this item.

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20. DISTRIBUTION / AVAILABILITY OF ABSTRACT

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22a. NAME OF RESPONSIBLE INDIVIDUAL

Steve Ruffini

22b. TELEPHONE (Include Area Code)

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I. REPORT NUMBER: DOD POP HMTR/AYD 91-008

II. TITLE: Performance Oriented Packaging Report for Firing, Device,  
Demolition: M142, Multipurpose

AUTHOR: Frank M. Snizek

PERFORMING ACTIVITY: ARDEC

ADDRESS: Department of the Army  
ARDEC, SMCAR-AEP  
HQ, U.S. Army Armament, Munitions, and Chemical Command  
Picatinny Arsenal, NJ 07806-5000

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Justification	
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Dist	Avail and/or
A-1	Special

## 1. DATA SHEET

### CONTAINER

Type: Box

UN Code: 4C1

Nomenclature: Packing and Marking for Box, Wood, Wirebound for  
Firing Device Demolition, Multipurpose, M142 in Box,  
Ammunition, M19A1

Specification: Mil-B-46506

Drawing Number: 9311138

Material: Wood and Wire

Gross Weight: 43.0 pounds

Outside Dimensions: 17 3/4 in x 11 7/8 in x 8 1/8 in

Inside Dimensions: 15 3/8 in x 11 in x 7 1/4 in

### PRODUCT

Name: Firing Device, Demolition, Multipurpose, M142

Drawing Number: 9296865

United Nations Number: 0044

United Nations Packing Group: II

Physical State: Solid

Amount per Container: 56

## 2. BACKGROUND, TESTS, AND RESULTS

Reference the following documents:

- a. United Nations Transport of Dangerous Goods, Sixth Edition
- b. Federal Register dated December 21, 1990
- c. Federal Register Notice dated February 21, 1991

Instead of testing the specific container used for the M142 Multipurpose Demolition Firing Device, wirebound boxes built to the same specification, but with the following weight and dimensions were tested.

Gross Weight: 65 lb.

Inside Dimensions: 15 3/8 in x 12 1/2 in x 7 1/4 in

This falls within the guidelines for analogy IAW Variation III of Reference 2c.

A Stacking Test was conducted on 3 containers with a weight of 2500 pounds for 24 hours. This weight exceeds the minimum requirement of a weight equivalent to a 10 foot stack height which is 939 pounds.

A Loose Cargo Test was conducted IAW with the Federal Register on the same 3 containers. The packages were tested at a vibration table frequency such that the bottom of the packages was raised 1/4 inch from the platform, which exceeds the requirement of 1/16 inch.

A Four Foot Drop Test was conducted on one of the containers that was subjected to the Loose Cargo Test. One container was dropped five times at different orientations as follows: top, bottom, long side, short side, and a top corner at the closure. This exceeds the requirement of one drop per container.

Test results indicate that there was no leakage or spillage of the containers following any of the tests conducted, and as such, meets the requirements of the Federal Register and the United Nations Transport of Dangerous Goods.